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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHAWAN, VIJAY B

ART UNIT	PAPER NUMBER
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2626

NOTIFICATION DATE	DELIVERY MODE
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06/27/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/669,475

Applicant(s)

GARDNER ET AL.

Examiner

Vijay B. Chawan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants' claim in claim 1, "an audio channel that may involve a lossy speech or audio compression algorithm" which is indefinite. Claims 2 and 3 recite "relationships" in claim language, what type of relationships? Remainder of the claims contain similar errors and need to be corrected and fixed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al., (4,903,901).

As per claim 1, Kondo et al., teach an apparatus for use in transmitting digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the apparatus comprising:

a data coder configured to convert the digital data into one or more types of sound parameters; and a sound synthesizer coupled to the data coder and configured to generate sound based on the one or more types of sound parameter (Col.1, lines 57-61).

As per claim 2, Kondo et al., teach the apparatus of claim 1, further comprising: a storage medium configured to store one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein the data coder is configured to convert the digital data into the one or more types of sound parameters based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 3, Kondo et al., teach the apparatus of claim 2, wherein the storage medium comprises a look up table that predefines one or more sets of relationships (Fig.19, codebook memory, item 107).

As per claim 4, Kondo et al., teach the apparatus of claim 1, wherein a sound parameter represents one value or a range of values (Col.2, lines 14-29).

As per claim 5, Kondo et al., teach the apparatus of claim 1, wherein the one or more sound parameters comprises a speech parameter (Col.1, lines 57-61).

As per claim 6, Kondo et al., teach the Apparatus for use in receiving digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the apparatus comprising: a sound analyzer configured to receive sound and to extract one or more types of sound parameters from the received sound; and a data decoder coupled to the sound analyzer and configured to convert the extracted one or more types of sound parameters into the digital data (Col.1, lines 57-61).

As per claim 7, Kondo et al., teach the apparatus of claim 6, further comprising: a storage medium configured to store one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein the data decoder is configured to convert the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 8, Kondo et al., teach the apparatus of claim 7, wherein the storage medium comprises a look up table that predefines one or more sets of relationships (Fig.19, codebook memory, item 107).

As per claim 9, Kondo et al., teach the apparatus of claim 6, wherein a sound parameter represents one value or a range of values (Col.2, lines 14-29).

As per claim 10, Kondo et al., teach the apparatus of claim 6, wherein the extracted one or more sound parameters comprise a speech parameter (Col.1, lines 57-61).

As per claim 11, Kondo et al., teach a method for use in transmitting digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the method comprising: converting digital data to be transmitted into one or more types of sound parameters; and generating sound based on the one or more types of sound parameter (Col.1, lines 57-61).

As per claim 12, Kondo et al., teach the method of claim 11, further comprising: storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein converting digital data to be transmitted comprises

converting the digital data into the one or more types of sound parameters based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 13, Kondo et al., teach the method of claim 12, wherein storing the one or more sets of relationships comprises storing a look up table that predefines one or more sets of relationships (Fig.19, codebook memory, item 107).

As per claim 14, Kondo et al., teach the method of claim 11, wherein a sound parameter represents one value or a range of values (Col.2, lines 14-29).

As per claim 15, Kondo et al., teach the method of claim 11, wherein the one or more sound parameters comprises a speech parameter (Col.1, lines 57-61).

As per claim 16, Kondo et al., teach a method for use in receiving digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the method comprising: extracting one or more types of sound parameters from received sound; and converting the extracted one or more types of sound parameters into the digital data (Col.1, lines 57-61).

As per claim 17, Kondo et al., teach the method of claim 16, further comprising: storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein converting the extracted one or more types of sound parameters comprises converting the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 18, Kondo et al., teach the method of claim 17, wherein storing the one or more sets of relationships comprises storing a look up table that predefines one or more sets of relationships (Fig.19, codebook memory, item 107).

As per claim 19, Kondo et al., teach the method of claim 16, wherein a sound parameter represents one value or a range of values (Col.2, lines 14-29).

As per claim 20, Kondo et al., teach the method of claim 16, wherein the extracted one or more sound parameters comprise a speech parameter (Col.1, lines 57-61).

As per claim 21, Kondo et al., teach an apparatus for use in transmitting digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the apparatus comprising: means for converting digital data to be transmitted into one or more types of sound parameters; and means for generating sound based on the one or more types of sound parameter (Col.1, lines 57-61).

As per claim 22, Kondo et al., teach the apparatus of claim 21, further comprising: means for storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein the means for converting converts the digital data into the one or more types of sound parameters based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 23, Kondo et al., teach the apparatus of claim 22, wherein the means for storing stores a look up table that predefines one or more sets of relationships (Fig.19, codebook memory, item 107).

As per claim 24, Kondo et al., teach an apparatus for use in receiving digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the apparatus comprising: means for extracting one or more types of sound

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parameters from received sound; and means for converting the extracted one or more types of sound parameters into the digital data (Col.1, lines 57-61).

As per claim 25, Kondo et al., teach the apparatus of claim 24, further comprising: means for storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein the means for converting converts the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 26, Kondo et al., teach the apparatus of claim 25, wherein the means for storing stores a look up table that predefines one or more sets of relationships (Fig.19, codebook memory, item 107).

As per claim 27, Kondo et al., teach a machine readable medium used for transmitting digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the machine readable medium comprising: codes for converting digital data to be transmitted into one or more types of sound parameters; and codes for generating sound based on the one or more types of sound parameter (Col.1, lines 57-61).

As per claim 28, Kondo et al., teach the medium of claim 27, further comprising: one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein the codes for converting converts the digital data into the one or more types of sound parameters based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 29, Kondo et al., teach a machine readable medium used for receiving digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the machine readable medium comprising: codes for extracting one or more types of sound parameters from received sound; and codes for converting the extracted one or more types of sound parameters into the digital data (Col.1, lines 57-61).

As per claim 30, Kondo et al., teach the medium of claim 29, further comprising: one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein the codes for converting converts the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 31, Kondo et al., teach the apparatus for use in transmitting and receiving digital data through an audio channel that may involve a lossy speech or audio compression algorithm, the apparatus comprising: means for converting digital data to be transmitted into one or more types of sound parameters; means for generating sound based on the one or more types of sound parameter; means for extracting one or more types of sound parameters from received sound; and means for converting the extracted one or more types of sound parameters into the digital data (Col.1, lines 57-61).

As per claim 32, Kondo et al., teach the apparatus of claim 31, further comprising: means for storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and wherein the means for converting

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converts the digital data into the one or more types of sound parameters based on the one or more sets of relationships, and wherein the means for converting converts the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships (Col.2, lines 14-29).

As per claim 33, Kondo et al., teach the apparatus of claim 32, wherein the means for storing stores a look up table that predefines one or more sets of relationships (Fig.19, codebook memory, item 107).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See attached PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone

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number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vijay B. Chawan
Primary Examiner
Art Unit 2626

VIJAY CHAWAN
PRIMARY EXAMINER

vbc
6/18/07